



# Hip Replacement

Information for patients

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You have a hip disorder and will be admitted into hospital under the care of our team for a total hip replacement.

This brochure contains practical information about total hip replacement surgery, including preparation, the operation, your stay in the hospital and the recovery and rehabilitation afterwards.

If you still have questions after reading this brochure, you may contact your doctor, nurses, occupational therapists, physiotherapists or social workers, all of whom will be able to give you more information.

We wish you a good recovery and a pleasant stay in our hospital.

The Specialist Hip team of the Orthopaedic Group of UZ Leuven



# MUSCLE SPARING HIP REPLACEMENT

## GENERAL INFORMATION

It is important to be well informed before taking the decision to undergo a muscle sparing hip replacement. The better informed you are, the easier the rehabilitation after surgery will be.

A hip replacement is indicated when the hip pain can no longer be controlled by other measures such as painkillers, injections or lifestyle modifications.

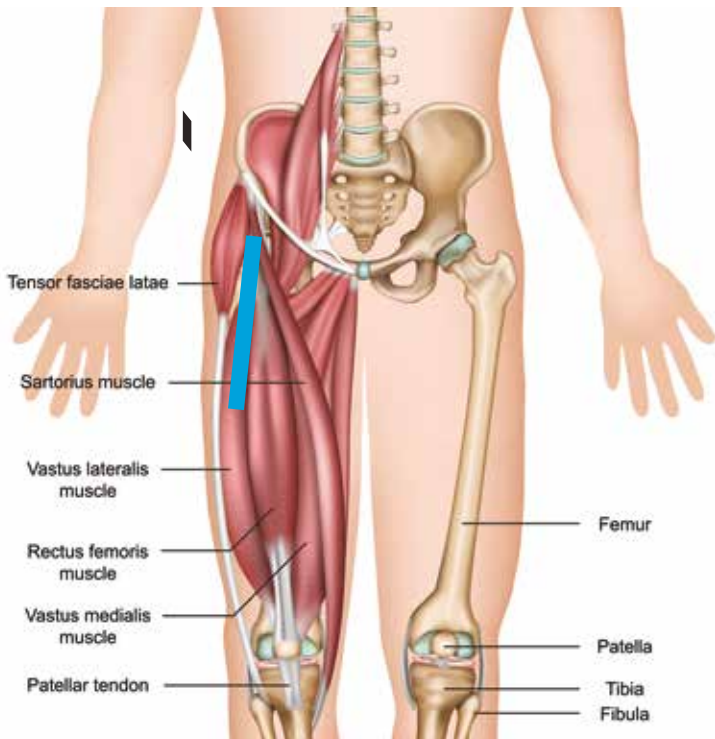


The most frequent reason why a hip replacement is needed is due to osteoarthritis of the hip (coxarthrosis). Osteoarthritis means that the protective cartilage layer has been worn down. Other common reasons why surgery might be necessary are avascular necrosis of the hip (reduced blood supply), hip dysplasia or rheumatoid arthritis.

## ACCESS

The direct anterior (muscle-sparing) approach uses a natural pathway or interval between the muscles at the front of the hip. The incision is 10 to 15 cm and is positioned anteriorly on the leg, instead of on the side (lateral approach), or in the gluteal region (posterior approach).

Superficially the interval runs in between the Sartorius and the Tensor Fascia Lata muscles. More deeply, the interval runs in between the gluteal muscles (Gluteus Medius and Minimus) and the Rectus Femoris.



## ADVANTAGES

Due to the fact that no muscles are being cut during surgery, the initial rehabilitation is quicker compared to the more traditional lateral or posterior approach. In fact this newer technique often allows walking on the new hip, on the day of the surgery. The need for crutches is usually shorter and the length of hospital stay can be reduced to 3 or 4 days.

Another advantage is that the risk of dislocation of the hip replacement is very small. During surgery the patient is positioned supine (lying on the back) which makes it easier to ensure the correct leg length, compared with the traditional side-lying position. A significant leg length difference after surgery is rare when using this technique.

## DISADVANTAGES

No muscles are being cut during surgery, but muscles do have to be pulled out of the way. This may (mainly in men) result in some pain in the thigh the first few days after surgery. This usually disappears after 3 or 4 days. Painkillers and regular applications of ice are helpful.

The lateral femoral cutaneous nerve (LFCN) is a sensory nerve that runs close to the skin incision. In about a third of cases the lateral side of the thigh can feel slightly numb after surgery. This usually disappears over the course of a couple weeks. In rare cases this can result in a painful sensation at touch (Meralgia Paresthetica).

## FOR WHO?

In theory the anterior approach can be used in every individual.

However, in some cases the surgeon might suggest another approach. For example, when previous incisions are present, if there are skin lesions or for revision surgery in cases with complex anatomy, due to previous hip trauma or surgery.

## MATERIALS

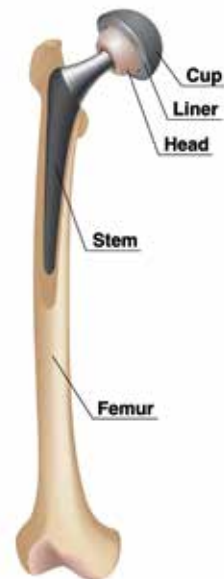
Different materials can be used during a total hip replacement. Important factors are age and level of existing bone quality.

### Metal

Both the cup and the stem are made of titanium. This biocompatible material is very strong and ideal for ingrowth in the bone. Rejection or allergy to this metal is extremely rare.

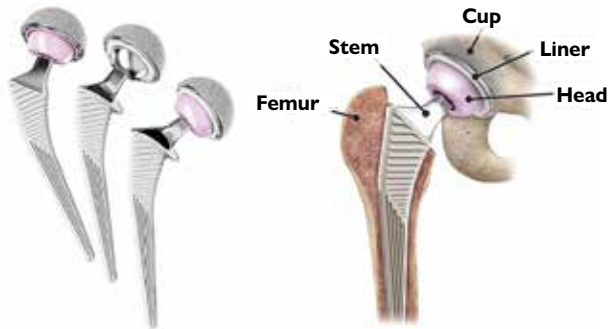
### Ceramic

Ceramics for medical use have very low wear rates. The head of the hip replacements are nearly always made of ceramics. The inside of the cup, called the “liner”, can also be made of ceramics. This is mainly used in patients younger than 50 years of age.



## Polyethylene

Polyethylene is a hard type of plastic. The inside of the cup (the liner) can be made of this material. This is the standard in patients older than 60 years of age.



## Cementless

Depending on the bone quality, a total hip replacement can be fully cementless. This means that both the cup and the stem are being fixed to the bone without the use of cement. In a primary hip replacement, the cup will always be uncemented. The bone will grow onto the rough surfaces of the titanium implants. If necessary additional screws can be used for primary stability. In most cases a cementless stem can also be used. However, in case of low bone quality due to age or osteoporosis, a cemented stem may be recommended.



# BEFORE SURGERY

## PREOPERATIVE CONSULTATION

Before a surgery can be planned a couple of preoperative checks must be completed.

- Preoperative consultation with the anaesthetist: Surgery is performed under general anaesthesia. The anaesthetist will review any current medication. Routinely an ECG and a blood analysis will be performed. If necessary additional investigations may be required.
- Preoperative templating radiograph: A pelvic X-ray with a calibration marker is used to digitally template the correct size of the hip replacement.
- In case of dental problems it is important to have this treated before hip surgery. During dental procedures, bacteria may enter the blood stream and potentially cause an infection of the hip replacement, which can lead to complications.

## INFORMATION SESSION

Every month information sessions are organised at the Gasthuisberg Hospital. The entire team (surgeon, nurse, physiotherapist, occupational therapist, social worker) will explain the procedure extensively and describe the rehabilitation after surgery. These sessions are held in Dutch language.

## SKIN AND NASAL DECONTAMINATION

Infection of a hip prosthesis can be caused by bacteria that can commonly be found on the skin. To decrease the risk of infection, you will have to use a decontaminating soap and nasal creme starting 5 days prior to admission. The prescriptions and instructions for use will be provided during the preoperative clinic.

## SMOKING CESSATION

Smokers have a strongly increased risk of complications after surgery: E.g. wound problems, infection of the prosthesis, ingrowth problems, pulmonary embolism, venous thrombosis, myocardial infarction.

It is absolutely necessary to quit smoking at least 2 months before surgery.



## WEIGHT LOSS

Obesity is a also strong predictor of postoperative complications (specifically infection and wound healing problems).

Other complications such as pulmonary embolism and thrombosis can also occur much more frequently. It is important to achieve a healthy weight before surgery. At a minimum the Body Mass Index should be less than 40.



It has been recognized that patients tend not to lose weight after surgery, even if activity is generally increased. Therefore a healthy weight must be achieved before surgery.

## PREPARE FOR REHAB

Get in touch with a physiotherapist of your choice who can treat you after surgery.

Practice how to walk with crutches and how to do transfers before your surgery. A link to the instructional videos can be found on [www.heuprobleem.com/instructiemateriaal](http://www.heuprobleem.com/instructiemateriaal).

## PREPARE YOUR DISCHARGE

You will be able to leave the hospital on average 2 to 3 days after surgery. Plan in advance where you will be staying for your rehab. If you decide to stay in a rehab center, this needs to be planned well in advance. Please get in touch with the social worker if you need any assistance: [www.uzleuven.be/en/social-work](http://www.uzleuven.be/en/social-work) or 016 34 10 22.

# DAY OF SURGERY

## ADMISSION

Admission is at 7 am the day of surgery. Patients who are planned to be operated first in the morning may be admitted on the evening before surgery.

You have to be nil-by-mouth (no food/milk) from midnight before surgery. Drinking of water only is allowed until 4 hours before surgery.

## ANESTHESIA

The procedure routinely takes place under a general anaesthetic. If this is contraindicated, a locoregional anaesthesia (spinal) can alternatively be used.

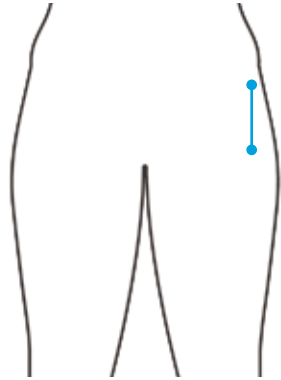
At the end of the surgery additional local anaesthetic agents are injected into the wound for pain control during the first hours after surgery.

## SURGERY

First you will enter the preparation room, where an intravenous line will be put in. After completing all the checks, you will be transported to the operating theatre. The anaesthetist will take care of the general anaesthetic and monitor you throughout the surgery. The procedure normally takes 1h to 1h30 on average. After surgery you will be woken up and monitored in the recovery room for 2 hours.

## WHERE IS THE INCISION?

A longitudinal incision is routinely used.



## HOSPITAL STAY

### AFTER SURGERY: AFTER THE PROCEDURE

- A local anaesthetic will be administered in the wound at the end of the surgery. This decreases the pain during the first hours after surgery. However, towards the end of the day, the local anaesthetic may wear off. It is therefore very important not to skip any painkillers the nurses offer to you, even if the pain is well controlled at that specific moment.
- Drink plenty of water.
- Move your feet and legs. A pillow will be placed between the legs until the morning after surgery. However, you should not keep your legs still during that time. Move both your feet and bend your knee till your foot is flat on the bed.
- If you feel well enough the physiotherapist will get you out of bed in the afternoon and help you to take the first steps on your new hip.

## DAY 1 AFTER SURGERY

- Blood analysis to check blood levels (haemoglobin)
- Removal of intravenous line after administration of last dose of antibiotics
- If a drain was used, this will be removed in the morning.
- The dressing stays on.
- Swelling around the wound is normal.
- You will walk in your room or the corridor with a walking frame or with 2 crutches
- Ice application and rest after the exercises will reduce pain and swelling.
- In men the entire thigh can often feel very stiff.
- A slight increase in temperature (up to 38.5°) is normal the first 2 or 3 days after surgery.
- In the evening, you will receive a subcutaneous injection for thrombosis prophylaxis. This is changed to oral medication on discharge (asaflo or xarelto based on risk assessment).

## DAY 2 AFTER SURGERY

- An x-ray of the hip and pelvis is performed to check the position of the replacement.
- Physiotherapy: walking with crutches in corridor and exercises in the physio room.  
Climbing stairs with crutches can also be performed today.

- Men can often still suffer from pain and stiffness in the thigh: maintaining enough movement and physio is crucial.
- Continue ice applications and rest after the exercises.
- Return to home is possible if all discharge criteria have been fulfilled.

## JOUR 3 APRÈS L'OPÉRATION

- The physiotherapy exercises will be increased. Climbing stairs with crutches will be performed today.
- The dressing will be changed to a transparent dressing before discharge.
- Discharge if the criteria are met.

## DISCHARGE CRITERIA

You are medically fit to leave the hospital if:

- The wound is dry and clean.
- The pain is well controlled on oral medication.
- The physiotherapy goals have been achieved: Safe walking with crutches, transfers and using stairs.

The exact day of discharge strongly varies from person to person and depends on your age, general health, the severity of the arthrosis and the preoperative muscle status.

The average length of stay in the hospital is 3 to 4 days.

# BACK HOME

## FIRST WEEKS AFTER SURGERY

Your physiotherapist will follow you up during your rehabilitation at home. Specific instructions regarding mobilisation and weight-bearing will be found on the physiotherapy prescription. Usually 2 crutches have to be used for 4 weeks postoperatively to reduce the risks of falling.

It is normal to have some muscle pain the first weeks after surgery. Remember to rest after the exercises and take a pain killer if necessary. Do not forget to apply ice 3 times daily. Swelling of the leg is normal and will gradually migrate toward the knee. This will then disappear after a couple of weeks.

In up to 30% of patients, a numb feeling might be present on the lateral (outer) side of the leg. This will slowly decrease, but may take several weeks or months.



**If there are any problems with the wound (discharge, bleeding, redness) you should contact the hospital immediately.**

## MEDICATION

- Blood thinning medication will be prescribed to prevent deep venous thrombosis (DVT). This can consist of daily injections or, in most cases, oral medication (Asaflow or Xarelto™), for 30 days after surgery.
- Anti-inflammatory drugs are prescribed for 2 weeks to prevent calcifications in the muscles and to decrease pain and swelling. These should always be taken with a meal and must be stopped in case of gastrointestinal intolerance. Not everybody is allowed these medications.
- As mentioned previously, pain is normal the first weeks after surgery. Take enough painkillers so it remains possible to do all of the exercises.

## COMPRESSION STOCKINGS

Compression stockings are not necessary after an anterior hip replacement. They are only prescribed if you have a history of thrombosis or an otherwise increased risk. Swelling of the leg is normal after surgery, but remaining active will help to increase circulation and decrease the swelling.

## NURSING FOLLOW-UP AT HOME

- A transparent and water-resistant dressing will be applied on the wound before discharge. This dressing does not need to be changed daily. If the dressing comes loose, a nurse should be asked to reapply this. The sutures are reabsorbable and only the knots on the outside have to be removed by your GP 2 - 3 weeks after surgery. The suture itself does not have to be removed.
- If necessary a nurse can offer daily help with getting dressed or getting washed. A prescription will be provided by the assistant on the ward.

# FOLLOW UP

## FOLLOW-UP APPOINTMENTS

- **At 6 weeks:** Outpatient Clinic with radiographic control (x-ray). The position of the components and wound healing are checked.
- **At 3 - 4 months:** Outpatient Clinic without X-ray control. Assessment of the progression of the rehab.
- **At 1 year:** Outpatient Clinic with X-ray control. Assessment of bony ingrowth of the hip replacement.
- Further follow-up depending on the symptoms. It is advised to have an X-ray every 5 years.

## MONITORING THE QUALITY OF OUR CARE

Monitoring the quality of our care is one of the priorities of the University Hospitals of Leuven. You will be asked to fill out questionnaires on a regular basis. This will help us to follow your rehabilitation process and allows us to improve the care for our future patients.

At the moment we are using the online moveUP Platform for data collection. Please find more information on [www.moveup.care](http://www.moveup.care).

# COMPLICATIONS

## ALARMING SIGNS

Please contact the Orthopaedic department of the University Hospitals of Leuven immediately if you have one of the following symptoms or clinical signs:

- **Fever** after discharge can be a sign of infection.
- **Wound drainage:** The wound should remain dry and clean after discharge. Any leakage of fluid or blood is not normal.
- **Impossibility to bear weight** can be a sign of dislocation or fracture.
- Sudden **shortening** of the leg can be a sign of dislocation or fracture.

## CONTACT DETAILS

8h - 17h: Secretary of the orthopaedic department: 016 33 88 27

17h - 8h: Emergency care: Oncall orthopaedic doctor: 016 34 39 00

## LATE COMPLICATIONS

As with any other surgery, there are certain risks associated with the placement of a hip replacement and complications are possible. The risks of developing one of these complications is very low.

- **Infection** of the hip replacement: in most cases a reoperation (wash-out or replacement of the prosthesis) will be necessary. Antibiotics are always administered during surgery to minimise this risk.
- **Dislocation**: this means that the femoral head comes out of the cup of the prosthesis. It can occur after a fall or due to extreme rotational movements. During your hospital stay, the physiotherapist will teach you how to avoid these movements. The risk of dislocation is highest in the first 3 months following surgery.
- **Periprosthetic fracture** is a fracture of the bone around the hip replacement. This usually happens after a fall and in most cases surgery is necessary. If the hip replacement is still fixed to the bone it can be maintained, however if the replacement is loose it will have to be changed.

## FINALLY

Placing a total hip prosthesis is a very successful orthopedic procedure that changes the life of many people: they regain their mobility and the quality of life improves.

Thanks to innovations in materials, surgical and anesthesiological techniques, just like the postoperative medication, it is a safe procedure with a usually smooth and predictable rehabilitation.

Nevertheless, a good preparation and rehabilitation remain necessary. Therefore, follow carefully the instructions of the surgeon, the nurses and the team of occupational therapists and physiotherapists.

Rehabilitation is not a competition: everyone heals at their own pace. Much depends on your general health, age and physical condition.

In any case, the specialist hip team of UZ Leuven is always there for you. We wish you a quick recovery.

## PRACTICAL DETAILS

If you have any questions after the consultation or information session, or while reading this brochure, please do not hesitate to contact the hip team.

- For questions about the planning of your procedure, you can contact the orthopedic secretariat: tel. 016 33 88 27.
- For practical questions you can contact the nursing unit hospitalisatie 41 (tel. 016 33 81 20) or the head nurse (tel. 016 33 81 18) or at nursing unit hospitalisatie 29 (tel. 016 33 81 10) or to the head nurse (tel 016 33 81 12).
- For practical questions about preparing for discharge from hospital, please contact the social service of your health insurance fund or the social worker of the hospital (tel. 016 34 10 22).
- For more online information about hipproblems, you can visit [www.heuprobleem.com](http://www.heuprobleem.com) or [www.uzleuven.be](http://www.uzleuven.be).

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